THE PROFESSIONAL EVOLUTION OF WILDLIFE DAMAGE MANAGEMENT

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ABSTRACT: The term -- wildlife damage management, in lieu of animal damage control, vertebrate pest control, or nuisance animal control -- has become the currently recognized term for an area of wildlife management that a growing number of professionals spend a significant part of their time and/or career working in. The acceptance of this terminology is, however, a part of the continuing evolution of the profession and not simply a name change for political correctness. Admittedly, my purpose is not to validate or beg acceptance of this terminology. Rather, what I hope to do is to justify the underlying premise of the title, and applaud those (mostly unnamed) within our profession who have contributed to this evolution. I will close with some challenges that must be addressed to ensure that the field of wildlife damage management continues to evolve.

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Perhaps the place to begin this discussion of the professional evolution of wildlife damage management is to refer briefly to the dictionary definition of the two words -- professional and evolution. Webster (1986) defines professional as: "one that engages in a pursuit or activity professionally"; and evolution as: "a process of continuous change from a lower, simpler, or worse, to a higher, more complex or better state". Collectively we can probably agree that there have been many changes in the philosophy, tools, techniques and methodologies for conducting wildlife damage management (WDM) over the years from the early 1900's until today. Note: throughout the remainder of this paper the acronym WDM will be used when specifically referring to wildlife damage management.

In the early days of animal damage control work the situation politically, biologically, socially and economically was quite different, therefore, I will examine just the past 15 years to try to make my point. This short time frame encompasses a period of significant evolutionary progress, and most of us were likely involved at one level or another in work related to WDM during this period.

1980 - 1985

In 5-year increments, let's take a generic glance at the profession beginning in 1980. At that time, to the best of my knowledge, there were only two major communication outlets (Vertebrate Pest Conference in California and the Great Plains Wildlife Damage Control Workshop) for presentations and publication of scientific or technical papers in this area of work. The major federal agency responsible for animal damage control was in the Fish and Wildlife Service (FWS), U.S. Department of the Interior. Without attempting to delve into the controversy that swirled around this program, it is sufficient to note that for a number of years, there had been little administrative support for the program either internally or politically within the Service. As an example, to quote one anonymous FWS official at a 1980 public meeting, "The Service has been trying to get rid of this program for years and the only reason we haven't is that Congress won't let us". Obviously, public interest and controversy around the responsibility of animal damage control was high about this time and had been growing for many years. Examples of this public interest can be examined in the Leopold Report (1964), the Cain Report (1972), the FWS's ADC Policy Study Report (1978), and the Animal Damage Control Policy, (Watt 1981), that was implemented by the FWS at the direction of the Secretary of the Interior.

It was clear that animal damage control programs were in need of change and many professionals and their agencies, organizations and societies were trying to address these needed changes. For example, it was obvious that the use of chemical pesticides for control of vertebrate species was going to continue to be under greater scrutiny and registration of toxicants would become increasingly difficult to maintain. It was also obvious that some wildlife professionals perceived the existing programs to be inappropriate and did not consider animal damage control to be an integral part of wildlife management. There also appeared to be

some reluctance to accept papers related to animal damage control in either The Wildlife Society (TWS) Journal or the Bulletin. It is only fair to note, however, that any papers submitted had to meet the scientific criteria and academic standards necessary for publication at that time.

This, along with other controversies around the subject, led to the appointment of a TWS Animal Damage Control Committee in 1982. It is noteworthy that two of the reasons for establishment of this committee were: 1) that there had been a number of papers returned from editors with the suggestion that they were inappropriate for TWS publications because of the subject matter; and 2) the concern that a number of TWS members who worked in the WDM area were becoming frustrated by the perceived "Us vs. Them" attitude of some of the TWS membership.

During this 1980-1985 period several other occurrences of significance took place. In 1981 the International Association of Fish and Wildlife Agencies (IAFWA) developed its Policy on Animal Damage Control, (IAFWA 1981). The development and successful implementation of the First Eastern Wildlife Damage Control Conference held in Ithaca, New York in September, 1983 increased the opportunity for research and management information on wildlife damage from the eastern region of the nation to be shared with the scientific community. This conference joined the Vertebrate Pest Conference in California and the Great Plains Wildlife Damage Control Workshop in providing a growing opportunity for new research and management technologies to be published and disseminated.

In 1983 the Great Plains Handbook on the Prevention and Control of Wildlife Damage was published by the University of Nebraska Cooperative Extension Service, in cooperation with Extension Service, USDA and the Environmental Protection Agency. This handbook, aside from winning national honors and awards, was found to be an invaluable tool for wildlife professionals, educators and others regardless of their agency or professional affiliation.

Another event of significance during this period was development of the U.S. Department of Agriculture (USDA), Fish and Wildlife Policy, Departmental Regulation 9500-4 (1983). This policy contained a section on "economic losses from plant and animal pests" and clearly established that wildlife damage control was an integral part of the Department's comprehensive fish and wildlife policy. Another significant occurrence during this period was a meeting with TWS Council in March, 1984 by the current chair of the TWS Wildlife Damage Control Committee to clarify the Council charge to the Committee, justify the revised name for the Committee, and to determine the need for a policy statement on wildlife damage control to be published in TWS's Conservation Policies document.

Obviously, many other activities and efforts were taking place during this period which would influence WDM, e.g. a national survey of university curricula indicated that in 1982, only 4 institutions offered both undergraduate and graduate training in vertebrate pest control, (Timm, 1982). However, later during this period a number of land grant colleges and universities with wildlife programs began adding or supporting the teaching of wildlife damage control classes in their curricula. It was becoming increasingly obvious that WDM was an important area of work, was likely to continue to be needed, that the scientific quality of the work was improving, and that more research in this area was needed to be responsive to the demands of congress, to the needs of the public and to the needs of wildlife professionals.

1985-1990

From 1985 to 1990, a number of significant events took place that contributed to the professional evolution of WDM programs. The first of these was the adoption of a position statement on wildlife damage control by The Wildlife Society Council (TWS, 1985). An increased number of high quality papers on wildlife damage control were submitted to

the TWS Journal and Bulletin with an increased acceptance rate, and the Second Eastern Wildlife Damage Control Conference was conducted in North Carolina along with the continuing Great Plains Wildlife Damage Control Workshop and Vertebrate Pest Conference at staggered 2-year intervals. In March of 1985, there was a 2-day interagency workshop at the U.S. FWS, Denver Wildlife Research Center where a 25 person group of researchers, state Animal Damage Control supervisors, State Fish and Wildlife Agency and Extension wildlife professionals identified and prioritized 69 research needs in animal damage control. A final report of these priorities and recommendations was forwarded to the FWS Directorate in September, (Vohs et. al,. 1985).

In 1986 federal animal damage control responsibilities were transferred from the FWS, U.S. Department of the Interior to the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture. From the perspective of contributing to the professional evolution of wildlife damage management, the transfer of the animal damage control responsibility enabled the program to obtain: congressional visibility and appropriations; an immediate boost in administrative support; renewed vigor for the mission of the program; and renewed emphasis on training and continuing education for employees. It also provided an opportunity for both recruitment and training to fill positions vacant as a result of attrition. All of these factors and opportunities over the next several years, in concert with an emphasis on quality recruitment, training, TWS certification, enhanced continuing education of professionals and increased cooperation with other agencies, contributed significantly to the advancement of animal damage control professionals.

At approximately the same time that the transfer was stimulating changes in the federal program, urban WDM needs were becoming more visible, whether due to resident goose flock expansion and damage, bird aircraft strikes, beaver damage to subdivision properties, increasing urban deer conflicts or a variety of other situations. Obviously, during this same period, many state Fish and Wildlife Agencies were wrestling with increasing wildlife damage problems on private lands, farms and ranches. There was also a growing concern about the spread of rabies up the east coast of the U. S. along with increasing recognition that disease organisms associated with wildlife, e.g. Lyme disease, potentially increased threats to humans and domestic animals.

The dynamics of various programs, methods, and techniques used in the past to solve wildlife damage problems were changing. Many of the techniques and methodologies that had been proven effective in the past were being exposed to further scrutiny, and just as rapidly were being condemned by some groups and organizations, both fairly and unfairly. Our capabilities of addressing and resolving these management problems were being questioned for their humaneness, the validity of our damage assessment efforts, and our scope of alternatives and tools were accused of being too limited.

Other processes were taking place within the profession. For example, TWS began recognizing wildlife damage control conferences and workshops as worthy of support for continuing education, and some new professional positions with a major focus on wildlife damage control were being established. The private sector business in wildlife damage control grew and became better recognized during this period. This helped increase public awareness that there were real tradeoffs associated with having some wildlife species in yards or communities.

There were other efforts that contributed to this professional evolution, such as a number of papers on wildlife professionalism that were widely read and referenced in scientific publications. Some of these included papers by Berryman (1989), Kennedy (1985), McCabe (1985), Miller (1987), Swank (1987), and Thomas (1986), and some focused specifically on professionalism in the wildlife damage area.

In 1989, there was a significant reorganization and revitalization within the National Animal Damage

Control Association (NADCA). Without going into great detail about these changes, in effect, there was a changing of the guard in both leadership and editorial direction. These changes did concentrate on a major shift in professionalism and with the election held that fall, ushered in a new slate of officers in January 1990 with a new focus for the future. NADCA has continued this focus with new bylaws, a stronger and more professionally focused newsletter "The Probe", and currently provides support from its membership funds for major conferences, workshops, awards, and continuing education programs in wildlife damage control. In fact, NADCA's presence is evidenced at this conference via its support, sponsorship of best student paper awards and by holding its 1995 Annual Meeting in conjunction with this conference program.

1990-1995

The following examples further justify or support (my opinion) that the professional evolution of WDM has continued over the past 5 years. These observations and those delineated in the earlier periods are clearly not all inclusive and I am confident many of you can add to and strengthen the case with activities and observations of your own.

Since 1990, there has been a significant increase in the amount of WDM research being conducted by federal and state agencies, universities and the private sector. In addition, the overall complexity, scope, quality, use and adaptation of new technologies, and opportunity for presentation of that information has increased substantially. Also since 1990, an increased number of wildlife graduates with MS or PhD degrees who had the opportunity of conducting graduate research related to WDM and have an interest in working as a professional in this area have emerged. Many of these bright young professionals bring new expertise, different backgrounds and thought processes to the profession along with their enthusiasm and drive to be competitive and credible.

Continuing from 1990 to the present, there has been a significant increase in the number of outlets and opportunities for scientific papers on WDM to be both presented and published. For example, there has been an increase in WDM papers printed in both the TWS Journal and Bulletin, at the North American Wildlife and Natural Resources Conference, at the 3 major WDM professional conferences, at the Feral Hog Symposium, The Mountain Lion Symposium, the Symposium on Immuno-Contraception in Wildlife, regional wildlife association meetings, and others. In addition, there has been an increase in continuing education seminars and workshops conducted for Pest Control Operator's and agency technicians in a number of states.

The Wildlife Damage Management Working Group (WDMWG) of The Wildlife Society was the 2nd Group officially approved by TWS Council. This working group has been successful in establishing a paid membership of over 200 professionals and in securing approval to conduct WDM Sessions at the TWS Annual Meetings in Albuquerque (1994), and in Portland (1995). The Portland session was well attended by over 300 participants. The WDMWG has already developed and submitted a proposal to the TWS Program Committee for an all-day or 1/2 day session at the 1996 Annual Meeting in Cincinnati. The theme for this proposed session is "The Social, Economic, and Environmental Benefits of Wildlife Damage Management".

Some additional examples/occurrences which further contributed to this professional evolution include: acceptance and inclusion in TWS's Conservation Policies, the position statement on Responsible Human Use of Wildlife; establishment of the Berryman Institute at Utah State University with a focus on WDM research, education and extension programs; a full technical session on WDM sponsored by TWS, at the North American Wildlife and Natural Resources Conference in 1992, the expansion and recent revision of the handbook -- Prevention and Control of Wildlife Damage, with significant APHIS-ADC cooperative support, and

its dissemination to users nationally and internationally. Last, but not least, was the recognition of Mr. Jack Berryman's many professional contributions, including those related to his leadership for WDM, in presentation of the prestigious Leopold Award and Medal by TWS to Mr. Berryman in March, 1995.

CHALLENGES & CONCLUSIONS

In working with Dean Stewart, Phil Mastrangelo, Jim Armstrong and others responsible for developing and hosting this conference, it is evident they have been successful at putting together a program with speakers from a diversity of agencies, organization and interests. The scope of the papers is broad and serves to remind us that WDM in the future will likely be as dynamic and complex, if not more so, in the next 15 years as it has been over the past 15. I am reminded of some challenges shared with us in recent years, e.g. Hodgdon (1992) when he stated: "The focus of the future must be on realigning numerous policies for managing agricultural and forest lands and aquatic areas. In visualizing these management actions, it is imperative that we recognize the dominant influence of people and their activities on the resource base". Schmidt, Accord and Hawthorne (1992) stated emphatically that: "Professional wildlife damage managers must be able to continue to mediate conflicts between humans and wildlife into and beyond the next century". In closing remarks to the Fifth Eastern Conference, Miller (1992), made the observation that the WDM profession was at a credibility crossroads, gave a number of reasons for this perspective and a number of suggestions for changes the profession needed to pursue to meet the needs of the future. I am pleased to risk the observation that the WDM profession has made some significant progress in this evolution.

However, lest we become too proud of ourselves, the following challenges must be addressed in the future if the profession is to continue its progressive and professional evolution:

1. We must continue to emphasize and demonstrate that WDM is an integral and essential part of wildlife management -- to the profession, within responsible and cooperative agencies, organizations, and societies, to private landowners in both urban and rural areas, and to the public through outreach and education programs.

2. We must continue to plan, conduct and participate in quality continuing education programs -- conferences, workshops and symposia to share current research and management technologies with the profession, the scientific community, our diverse clientele and the public.

3. We must continue to monitor, evaluate and be proactive in addressing changes needed in WDM based on valid research, good science and common sense -- to meet the changing social, economic and environmental needs of society.

4. We must continue to support and encourage increased cooperation and coordination among agencies, organizations, researchers, managers and users -- of WDM information, education, technical assistance, and operational programs.

5. We must continue to develop new and more effective technologies for damage assessment, prevention and control, wildlife relocation and/or euthanasia -- including better capabilities to understand the human dimension aspects of WDM within the parameters of increasingly tougher restrictions and decreasing public acceptance of the use of pesticides and a variety of other previously acceptable tools and techniques.

6. We must become more knowledgeable and effective in addressing diseases and health threats transmitted and/or hosted by wildlife -- affecting humans, domestic

animals and public safety. We also need to better understand the public tolerance aspect of wildlife/health threats.

7. We must address scientifically the complex issue of wildlife depredation -- to people, people's property, to endangered and threatened species, and to wildlife restoration and management issues. Then we must find better ways to prevent, control, and manage depredation at a tolerable level.

8. We must remember that even though wildlife species are publicly owned, over 2/3 of their habitat in the contiguous U.S. exists on private lands -- and the majority of present and future wildlife recreation is likely to take place on private lands. Therefore, we must accept the responsibility as wildlife professionals to inform private landowners and managers how to effectively manage their lands to maintain and enhance wildlife habitat while keeping wildlife damage at tolerable levels consistent with the landowners objectives.

9. We must not become complacent or apathetic about the professional evolution in WDM and its increased recognition and image -- we can take some pleasure, yet we must continue to be honest, proactive, visionary and responsive to the challenges of the future and the changes that will need to be made.

10. Based on my experience, we should remember that WDM is always likely to be an area of work that will be controversial and complex -- it is not a new problem or issue; it always has, and probably always will be a vital concern in the protection of human interests, needs and desires; it rarely lends itself to simple and easy answers; it will not disappear or go away if we ignore it; and if not addressed by professionals, it is likely to force the landowner, mangaer or community to take action that may result in chaos, environmental "train-wrecks", wasted resources, health hazards, or habitat elimination for all wildlife species.

In conclusion, I hope this discussion stimulates you to reflect on the professional evolution of WDM. Fortunately, the availability of quality scientific references has grown significantly since I embarked on my career as a wildlife professional more than 30 years ago. I commend you to review some of the papers referenced in this presentation, as well as those from this and future WDM conferences and continuing education programs. I hope the challenges will continue to be capably addressed in the future by those of us now in the profession and those who will follow.

I have a deep and abiding respect for the stewardship responsibility, the land ethic, the professional honesty and integrity, and the innate observational capabilities exhibited by my colleagues over the years in our chosen profession. I thank our professional predecessors, mentors, and colleagues for their contributions to the professional evolution of WDM.

As we move on into the technical sessions of this workshop, I want to leave you with a few quotes from the T. H. Kelly Handbook (1989), about esprit de corps -- pride in self and organization. "It is cheerfulness in adversity, a desire to exceed objectives, a willingness to be seen, judged, counted and called on. It is ephemeral, elusive, and yet is absolutely attainable".

The work you do in WDM is important because it benefits; people, the public interest, and the wildlife resource. It contributes to wise stewardship, it has strong ties to a land ethic, and it supports the sustainability of a strong natural resource base. It should be accomplished without apology or excuses, but with appropriate management justification and esprit de corps. Thanks for your attention, and thanks to the hosts and organizers of this conference.